

(1) An antagonist of glucose-dependent insulintropic polypeptide (GIP) consisting essentially of a 24 amino acid polypeptide corresponding to positions 7-30 of the sequence of

(2) A method of treating non-insulin dependent diabetes mellitus in a patient comprising administering to the patient an antagonist of glucose-dependent insulintropic polypeptide (GIP).

(3) A method of improving glucose tolerance in a non-insulin dependent diabetes mellitus patient comprising administering to the patient an antagonist of glucose-dependent insulintropic polypeptide (GIP).

(4) A method of preventing, inhibiting or reducing obesity in an animal comprising administering to the animal an antagonist of glucose-dependent insulintropic polypeptide (GIP) to inhibit, block or reduce glucose absorption from the intestine of the animal.

(5) A method according to claim 4, wherein the animal is a human.

(6) A method according to claim 4, wherein the antagonist comprises at least an effective number of amino acids corresponding to those amino acids in positions 7-30 of the sequence of GIP or effective alternative sequences thereto.

(7) A method according to claim 5, wherein the antagonist comprises a 24 amino acid polypeptide corresponding to positions 7-30 of the sequence of GIP or effective alternative sequences thereto.

(8) An antagonist of glucose-dependent insulintropic polypeptide (GIP).

(9) An antagonist according to claim 8, wherein said antagonist comprises at least an effective number of amino acids corresponding to those amino acids in posts 7-30 of the sequence of GIP or effective alternative sequences thereto.

(10) An antagonist according to claim 8, wherein said antagonist comprises a 24 amino acid polypeptide corresponding to positions 7-30 of the sequence of ~~GIP~~ or effective alternative sequences thereto.

^ human GIP, SEQ ID NO:2

5 (11) A pharmaceutical composition for preventing, inhibiting or reducing obesity in an animal comprising:

an effective amount of an antagonist of glucose-dependent insulintropic polypeptide (GIP) to inhibit, block or reduce glucose absorption from the intestine of the animal; and

10 an acceptable pharmaceutical carrier.

(12) A pharmaceutical composition according to claim 11, wherein the antagonist comprises at least an effective number of amino acids corresponding to those amino acids in positions 7-30 of the sequence of ~~GIP~~ or effective alternatives thereto.

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(13) A pharmaceutical composition according to claim 11, wherein the antagonist comprises a 24 amino acid polypeptide corresponding to positions 7-30 of the sequence of ~~GIP~~ or effective alternatives thereto.

^ a7

20 (14) A pharmaceutical composition according to claim 11, said pharmaceutical composition further including an inert pharmaceutical excipient selected from the group consisting of sweetening, flavoring, coloring, dispersing, disintegrating, binding, granulating, suspending, wetting, preservative and demulcent agents.

25 (15) An antagonist according to claim 8, wherein the antagonist is lyophilized.

(16) An antagonist of claim 15, wherein the lyophilized antagonist is reconstituted with a suitable diluent selected from the group consisting of normal saline, sterile water, glacial acetic acid, sodium acetate and combinations thereof.

30 ~~(17) A method of developing a nonpeptide GIP-antagonist comprising:~~

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